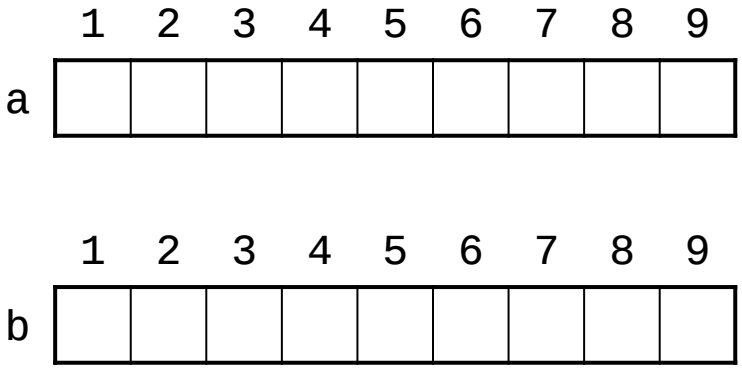
Pascal triangle

```
How many levels? (1-13): 9
                                1
                              1   1
                            1   2   1
                          1   3   3   1
                        1   4   6   4   1
                      1   5   10  10  5   1
                    1   6   15  20  15  6   1
                  1   7   21  35  35  21  7   1
                1   8   28  56  70  56  28  8   1
```

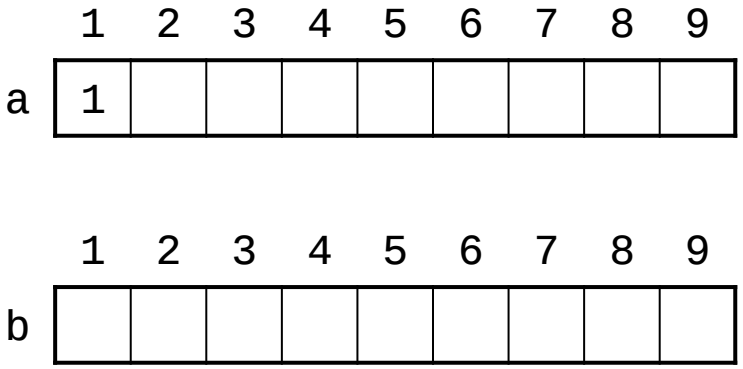
Pascal triangle - two arrays

```
          1
        1   1
      1   2   1
    1   3   3   1
  1   4   6   4   1
```



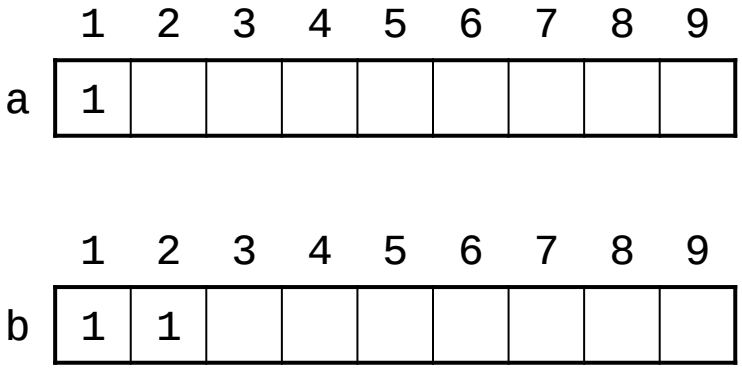
Pascal triangle - two arrays

```
        1
      1   1
    1   2   1
  1   3   3   1
1   4   6   4   1
```



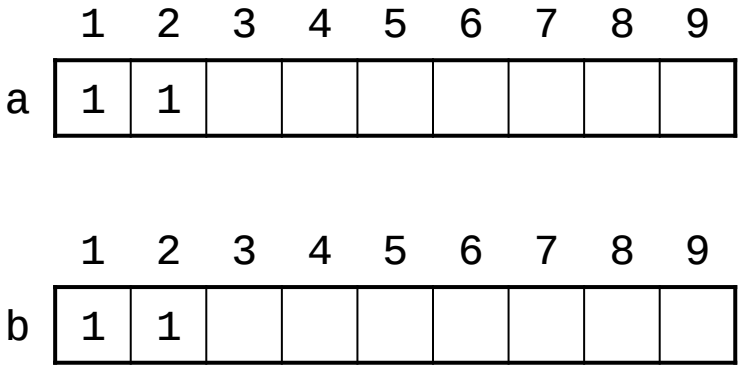
Pascal triangle - two arrays

```
          1
        1   1
      1   2   1
    1   3   3   1
  1   4   6   4   1
```



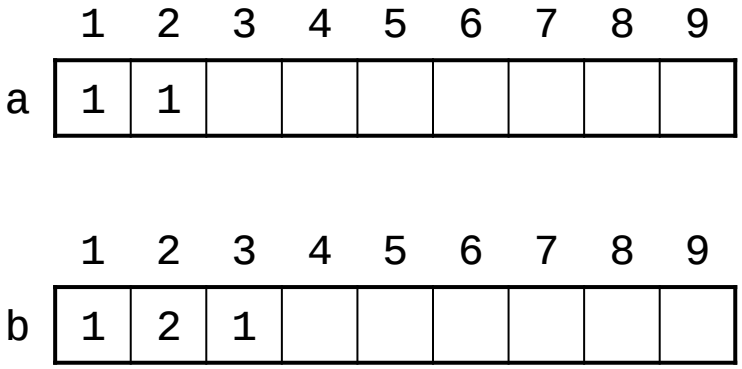
Pascal triangle - two arrays

```
        1
      1   1
    1   2   1
  1   3   3   1
1   4   6   4   1
```



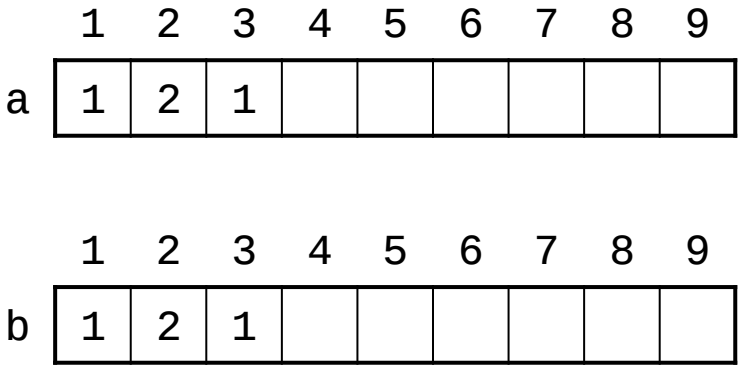
Pascal triangle - two arrays

```
          1
        1   1
      1   2   1
    1   3   3   1
  1   4   6   4   1
```



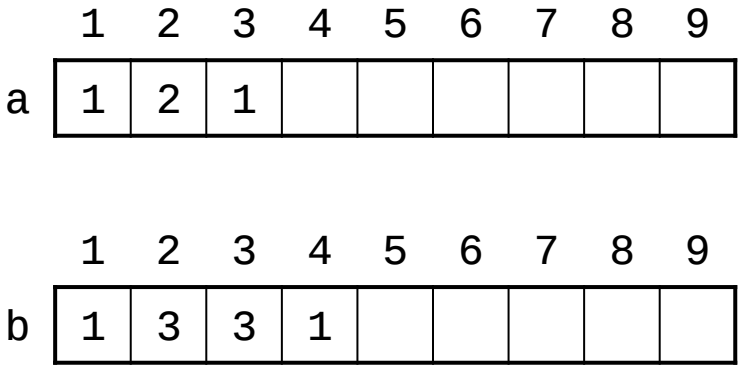
Pascal triangle - two arrays

```
        1
      1   1
    1   2   1
  1   3   3   1
1   4   6   4   1
```



Pascal triangle - two arrays

```
        1
      1   1
    1   2   1
  1   3   3   1
1   4   6   4   1
```

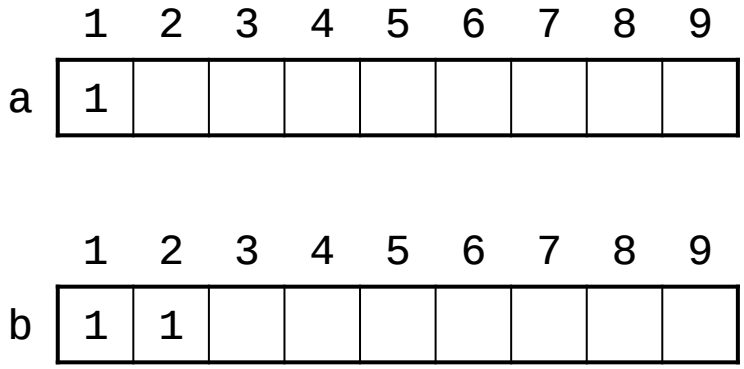


Pascal triangle - two arrays

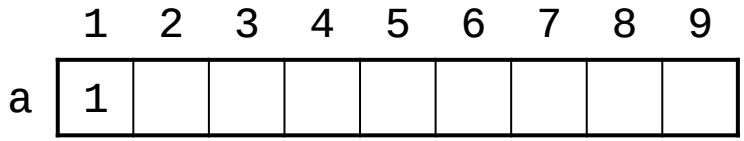
```
          1
        1   1
      1   2   1
    1   3   3   1
  1   4   6   4   1
```

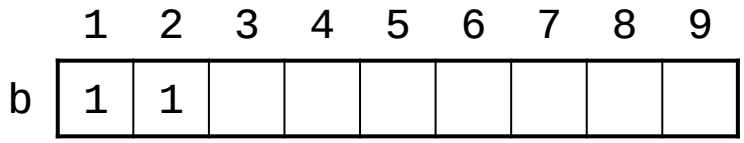
	1	2	3	4	5	6	7	8	9
a	1	3	3	1					

	1	2	3	4	5	6	7	8	9
b	1	3	3	1					

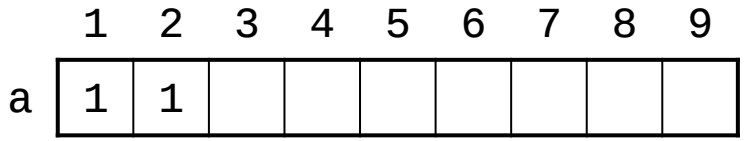

1 2 3 4 5 6 7 8 9
a
1
1 2 3 4 5 6 7 8 9
b
1 1

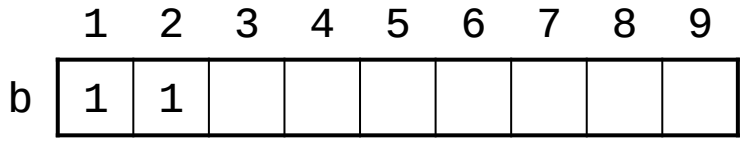
```
a[1] = 1;
```





```
a[1] = 1;
```

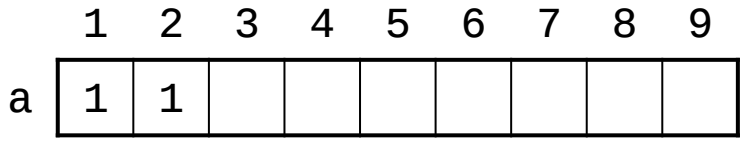


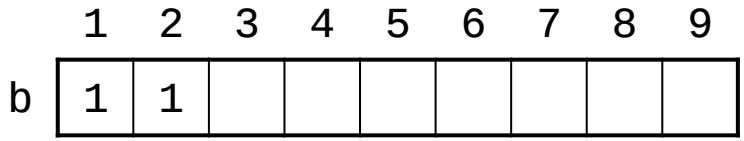


```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;

a[1] = b[1];
a[2] = b[2];
```

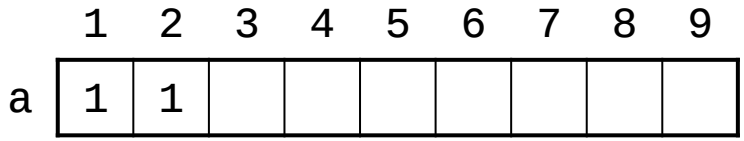


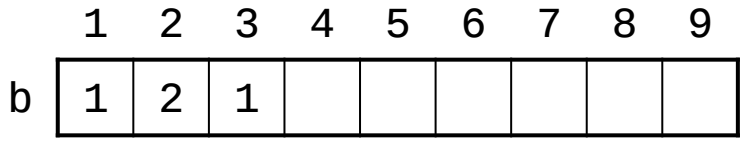


```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;

a[1] = b[1];
a[2] = b[2];
```

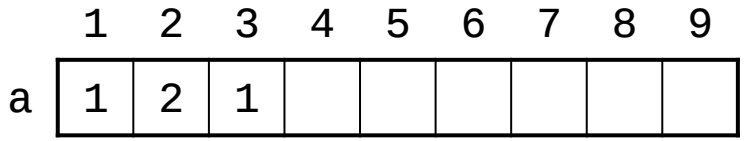


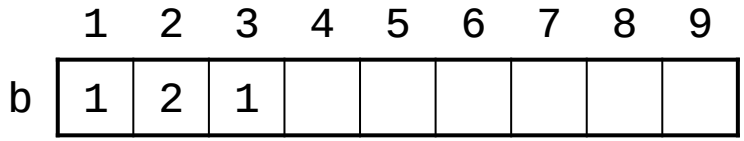


```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;

a[1] = b[1];
a[2] = b[2];
```





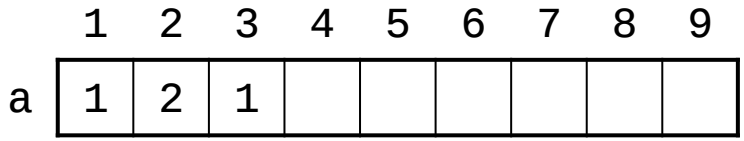
```
a[1] = 1;
```

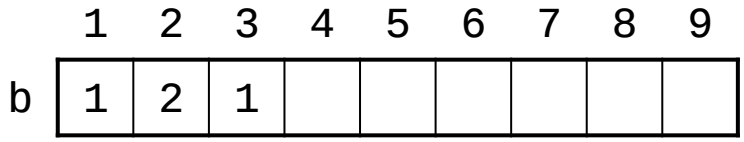
```
b[1] = a[1];
b[2] = 1;

a[1] = b[1];
a[2] = b[2];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```





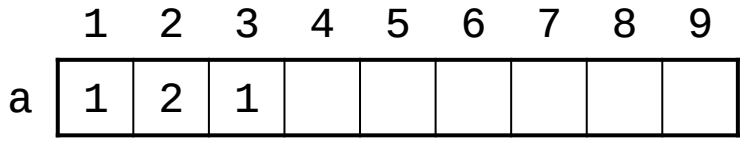
```
a[1] = 1;
```

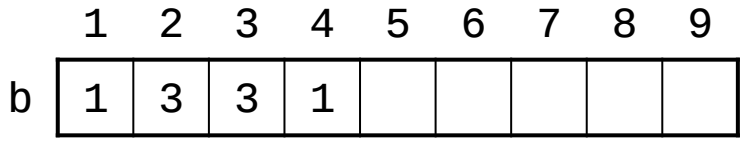
```
b[1] = a[1];
b[2] = 1;

a[1] = b[1];
a[2] = b[2];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```





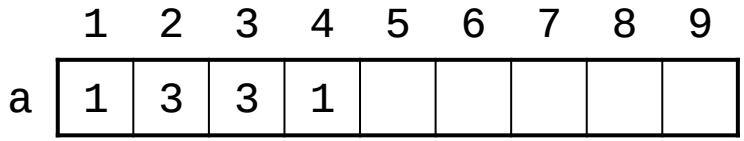
```
a[1] = 1;
```

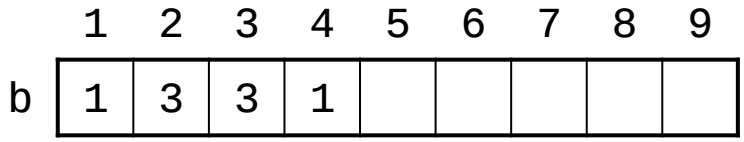
```
b[1] = a[1];
b[2] = 1;

a[1] = b[1];
a[2] = b[2];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```





```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;

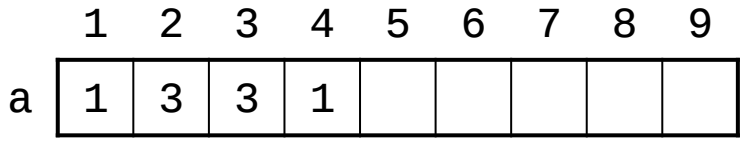
a[1] = b[1];
a[2] = b[2];
```

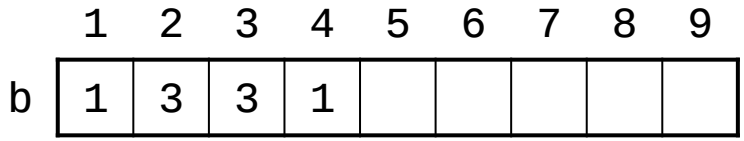
```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = a[2] + a[3];
b[4] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
```





```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;

a[1] = b[1];
a[2] = b[2];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = a[2] + a[3];
b[4] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
```

	1	2	3	4	5	6	7	8	9
a	1	3	3	1					

	1	2	3	4	5	6	7	8	9
b	1	4	6	4	1				

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;

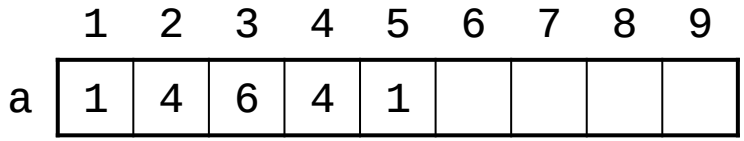
a[1] = b[1];
a[2] = b[2];
```

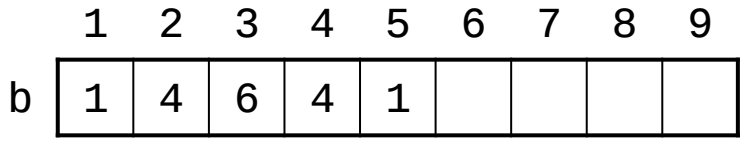
```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = a[2] + a[3];
b[4] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
```





```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;

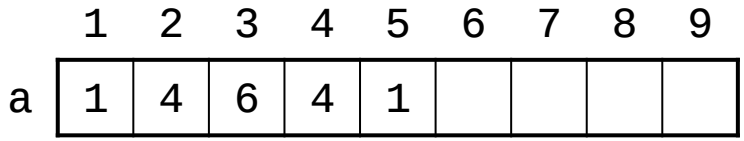
a[1] = b[1];
a[2] = b[2];
```

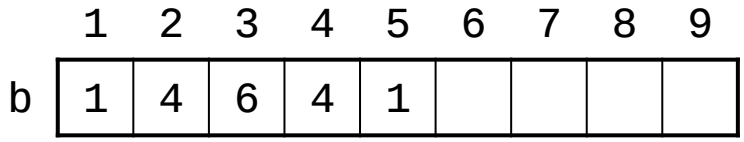
```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = a[2] + a[3];
b[4] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
```






```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = a[2] + a[3];
b[4] = a[3] + a[4];
b[5] = 1;

a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
a[5] = b[5];
```

```
a[1] = 1;
```

```
a[1] = b[1];
a[2] = b[2];
```

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
```

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
a[5] = b[5];
```

```
a[1] = 1;
```

```
a[1] = b[1];
a[2] = b[2];
```

```
for( int k = 1; k <= 2; k++ )
   a[k] = b[k];
```

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```

```
for( int k = 1; k <= 3; k++ )
   a[k] = b[k];
```

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
```

```
for( int k = 1; k <= 4; k++ )
   a[k] = b[k];
```

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
a[5] = b[5];
```

```
for( int k = 1; k <= 5; k++ )
   a[k] = b[k];
```

```
for( int i = 2; i < 6; i++ )
{
   for( int k = 1; k <= i; k++ )
      a[k] = b[k];
}
```

```
for( int k = 1; k <= 2; k++ )
   a[k] = b[k];

for( int k = 1; k <= 3; k++ )
   a[k] = b[k];

for( int k = 1; k <= 4; k++ )
   a[k] = b[k];

for( int k = 1; k <= 5; k++ )
   a[k] = b[k];
```

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = a[2] + a[3];
b[4] = 1;
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = a[2] + a[3];
b[4] = a[3] + a[4];
b[5] = 1;
```

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
```

```
b[1] = a[1];
for( int j = 2; j <= 1; j++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;
```

```
b[1] = a[1];
for( int j = 2; j <= 2; j++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = a[2] + a[3];
b[4] = 1;
```

```
b[1] = a[1];
for( int j = 2; j <= 3; j++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = a[2] + a[3];
b[4] = a[3] + a[4];
b[5] = 1;
```

```
b[1] = a[1];
for( int j = 2; j <= 4; j++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
for( int i = 1; i < 5; i++ )
{
   b[1] = a[1];
   for( int j = 2; j <= i; j++ )
      b[j] = a[j-1] + a[j];
   b[i+1] = 1;
}
```

```
b[1] = a[1];
for( int j = 2; j <= 1; j++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
b[1] = a[1];
for( int j = 2; j <= 2; j++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
b[1] = a[1];
for( int j = 2; j <= 3; j++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
b[1] = a[1];
for( int j = 2; j <= 4; j++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
for( int i = 2; i < 6; i++ )
{
   for( int k = 1; k <= i; k++ )
      a[k] = b[k];
}

for( int i = 1; i < 5; i++ )
{
   b[1] = a[1];
   for( int j = 2; j <= i; j++ )
      b[j] = a[j-1] + a[j];
   b[i+1] = 1;
}
```

```
for( int i = 2; i < 6; i++ )
{
   for( int k = 1; k <= i; k++ )
      a[k] = b[k];
}
```

```
for( int i = 1; i < 5; i++ )
{
   b[1] = a[1];
   for( int j = 2; j <= i; j++ )
      b[j] = a[j-1] + a[j];
   b[i+1] = 1;
}
```

```
for( int i = 1; i < 5; i++ )
{
   for( int k = 1; k <= i+1; k++ )
      a[k] = b[k];
}
```

```
for( int i = 1; i < 5; i++ )
{
   b[1] = a[1];
   for( int j = 2; j <= i; j++ )
      b[j] = a[j-1] + a[j];
   b[i+1] = 1;
}
```

```
for( int i = 1; i < 5; i++ )
{
   b[1] = a[1];
   for( int j = 2; j <= i; j++ )
      b[j] = a[j-1] + a[j];
   b[i+1] = 1;

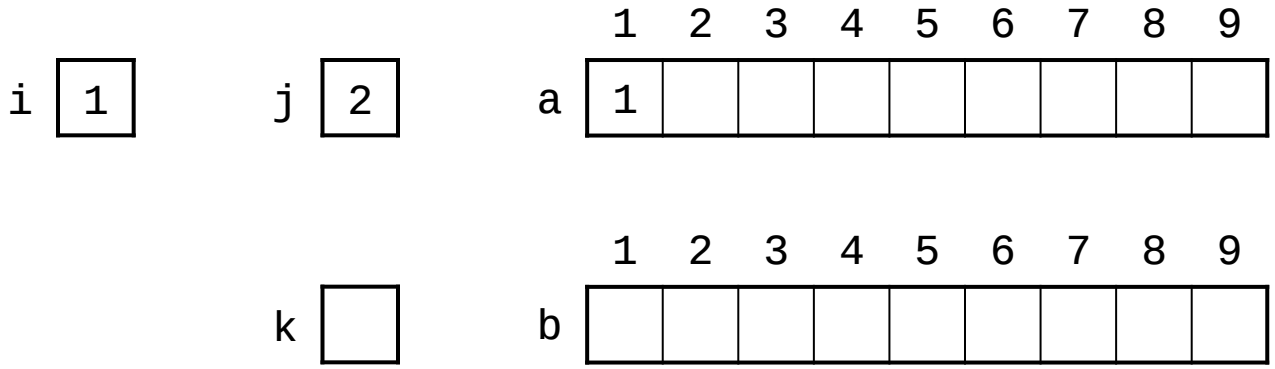
   for( int k = 1; k <= i+1; k++ )
      a[k] = b[k];
}
```

```
for( int i = 1; i < 5; i++ )
{
   for( int k = 1; k <= i+1; k++ )
      a[k] = b[k];
}

for( int i = 1; i < 5; i++ )
{
   b[1] = a[1];
   for( int j = 2; j <= i; j++ )
      b[j] = a[j-1] + a[j];
   b[i+1] = 1;
}
```

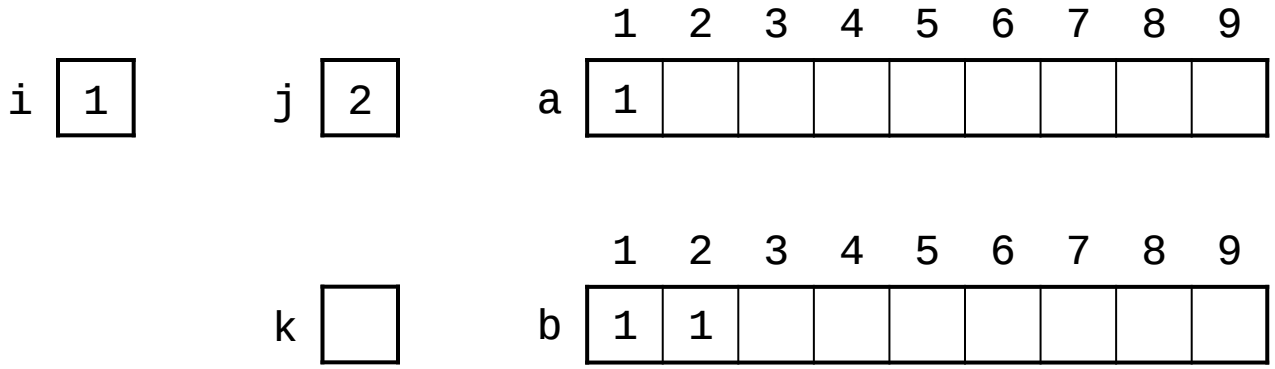
```
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```




```
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```




```
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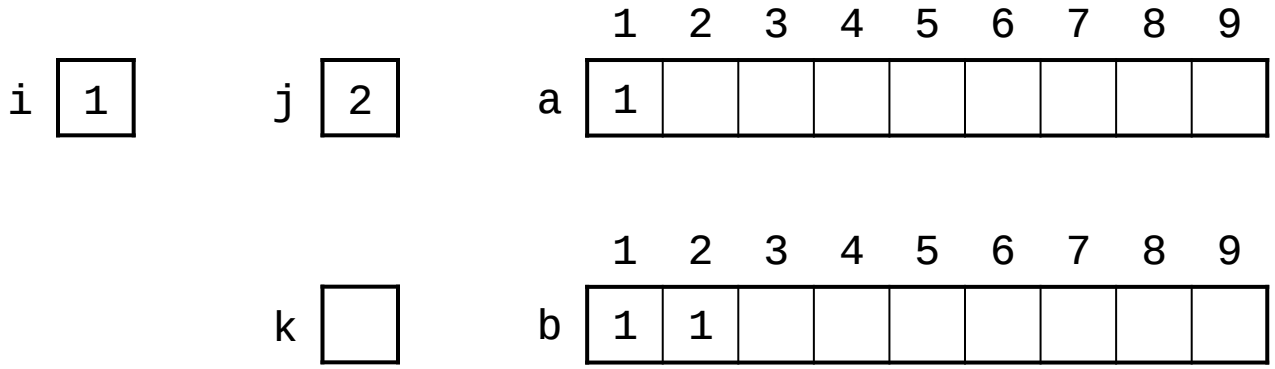
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```




```
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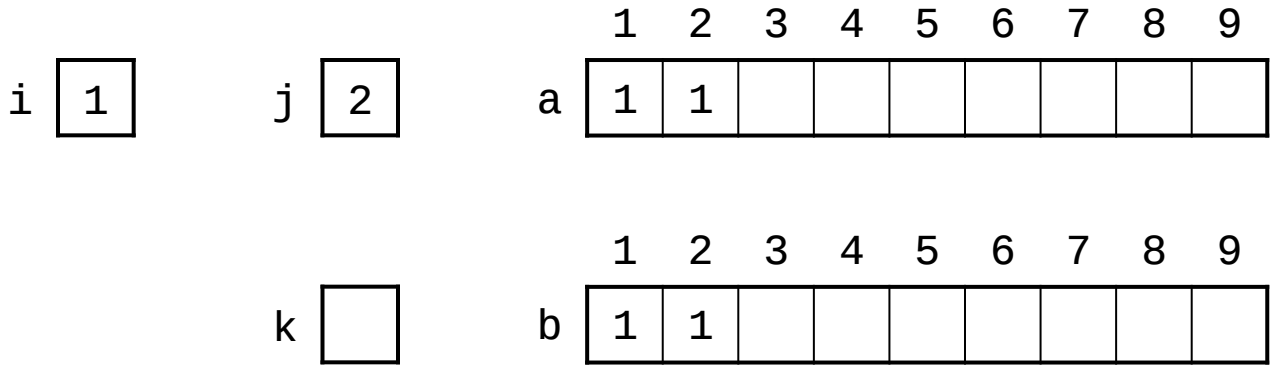
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```




```
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{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
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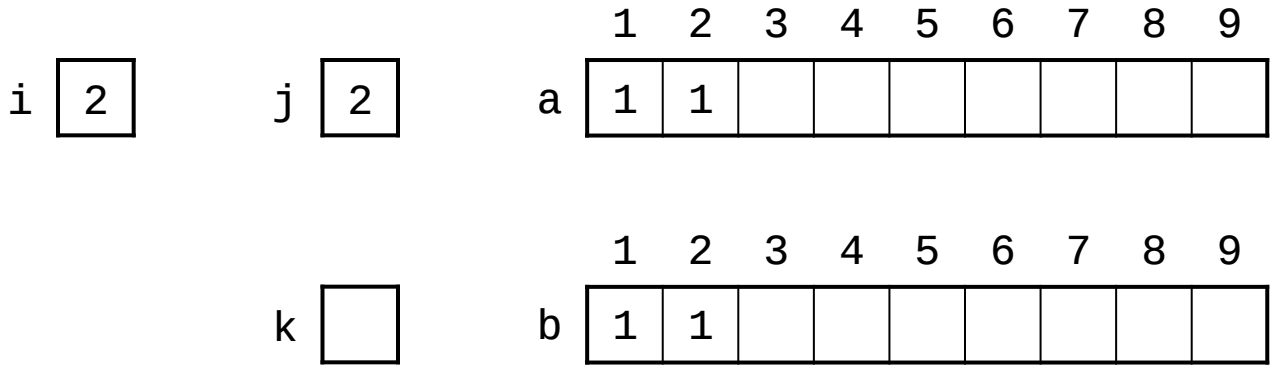
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```




```
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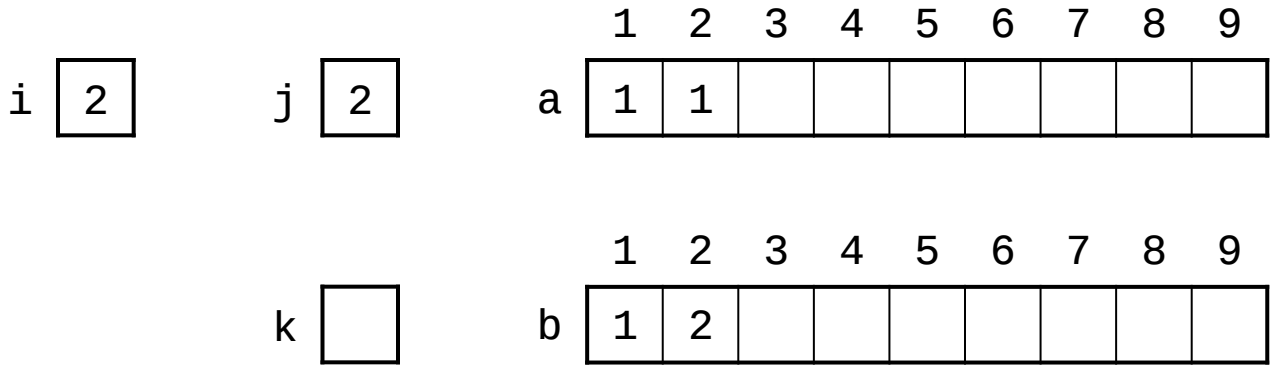
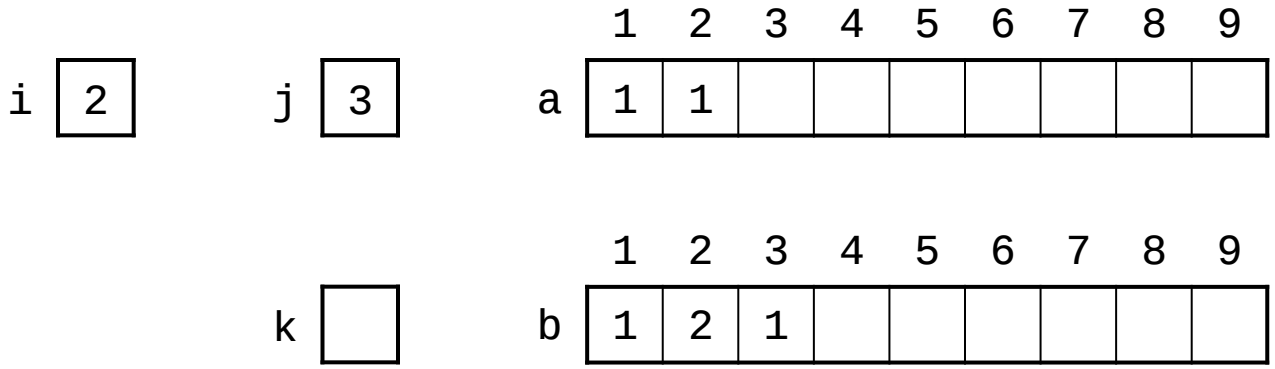
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```




```
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```




```
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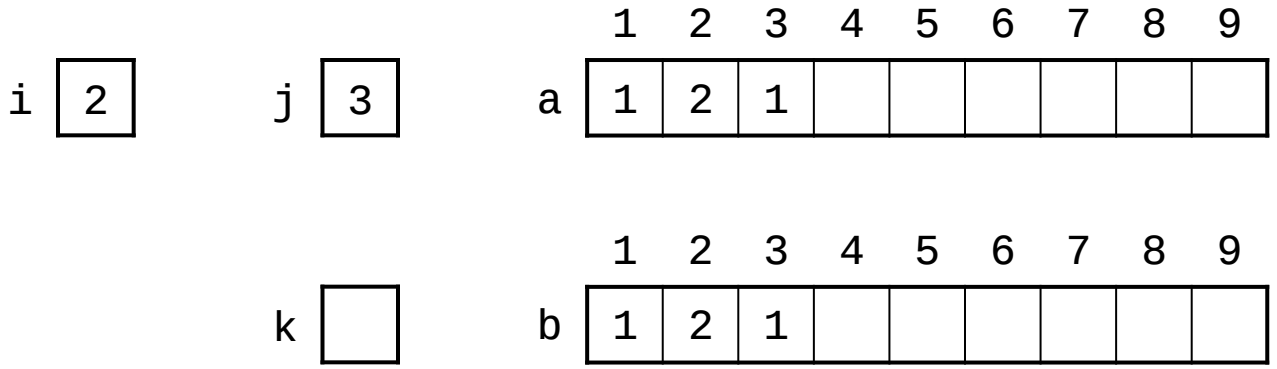
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```




```
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{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
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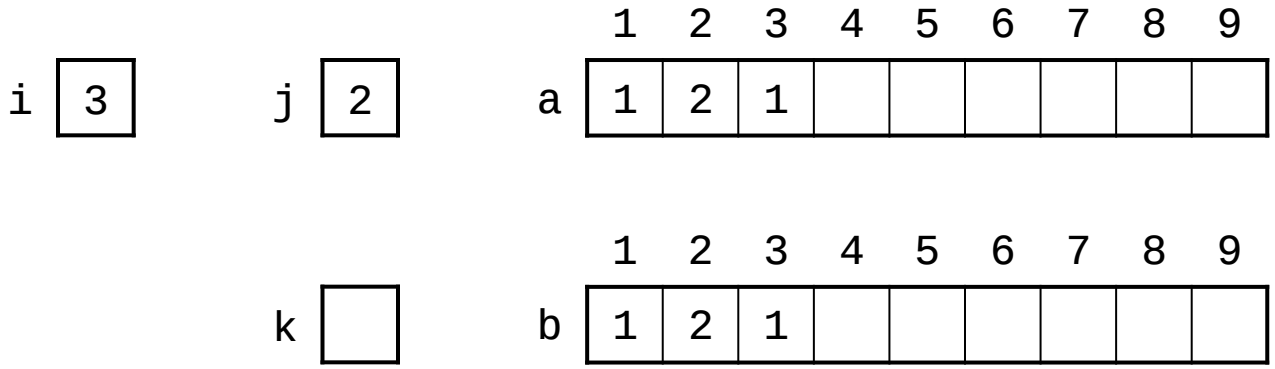
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```

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   cout << "How many levels? (1-13): ";
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         b[j] = a[j-1] + a[j];
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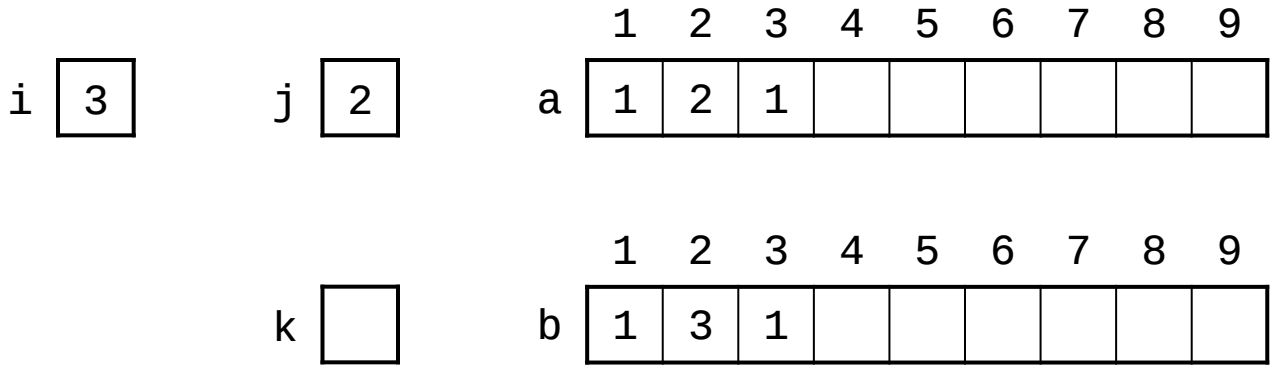
      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```

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{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
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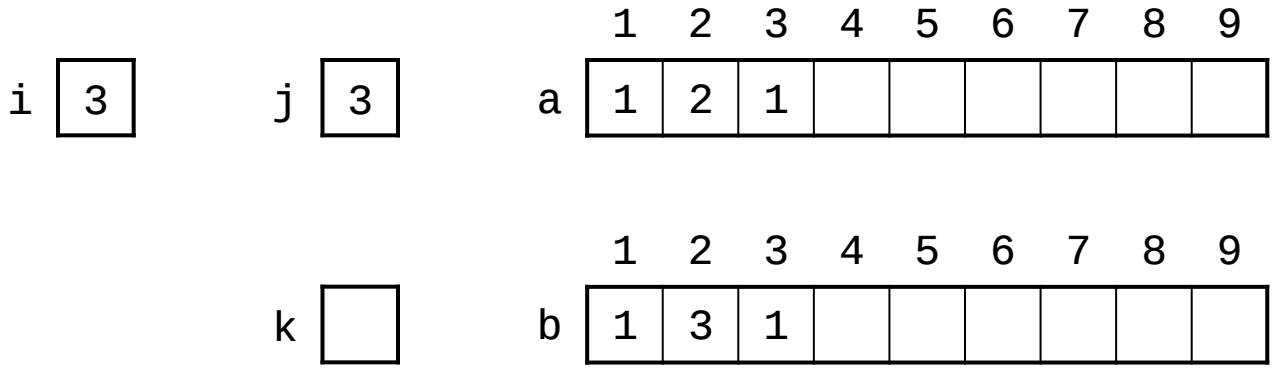
      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```

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   a[1] = 1;
   for( int i = 1; i < level; i++ )
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      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
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      for( int k = 1; k <= i+1; k++ )
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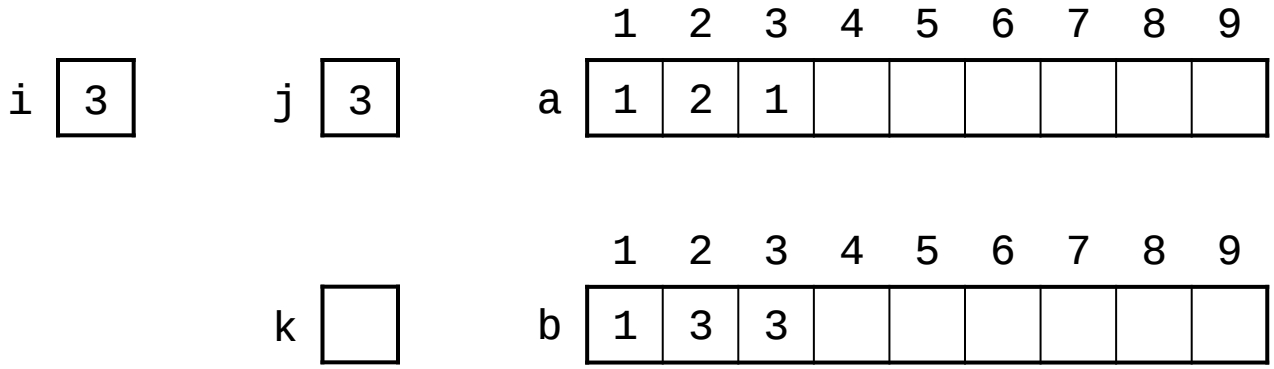
   }
}
```




```
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   cout << "How many levels? (1-13): ";
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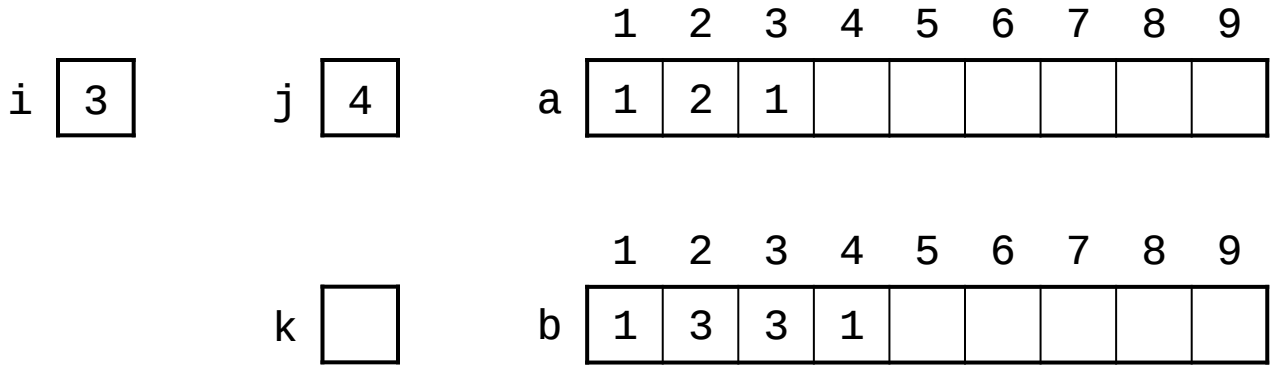
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```




```
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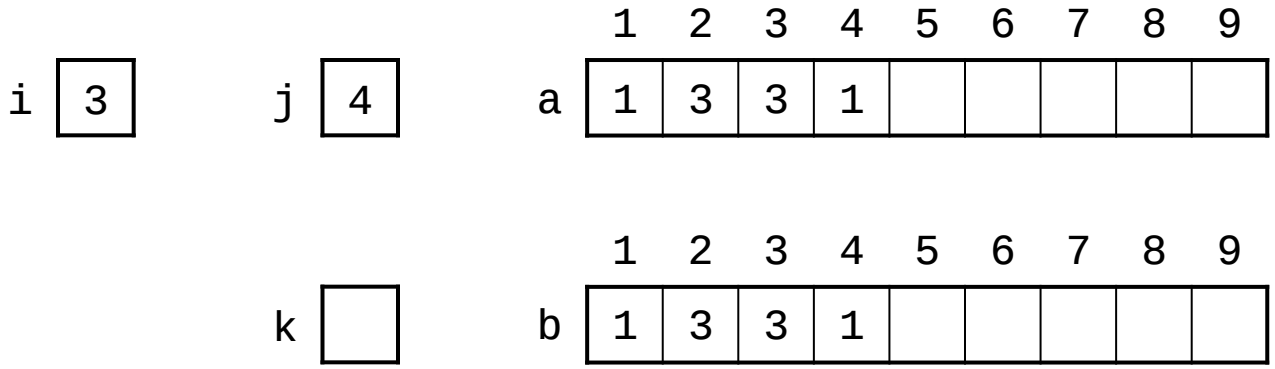
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```



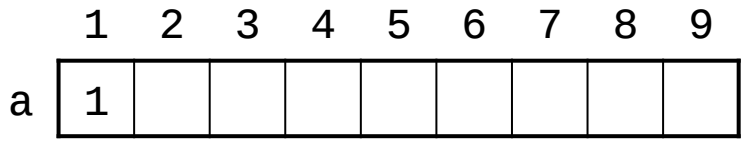

```
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```

```
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for( int j = 2; j <= i; j++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;

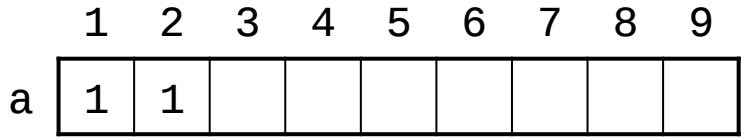
      for( int k = 1; k <= i+1; k++ )
         a[k] = b[k];
   }
}
```

Pascal triangle - one arrays



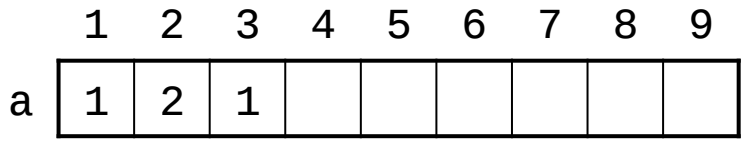

```
                1
            1       1
        1       2       1
    1       3       3       1
1       4       6       4       1
```

Pascal triangle - one arrays



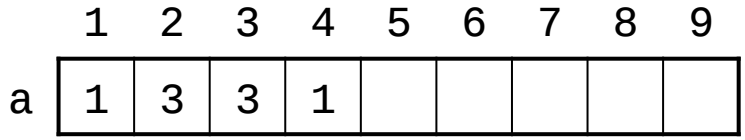

```
                1
            1       1
        1       2       1
    1       3       3       1
1       4       6       4       1
```

Pascal triangle - one arrays




```
                1
            1       1
        1       2       1
    1       3       3       1
1       4       6       4       1
```

Pascal triangle - one arrays

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            1       1
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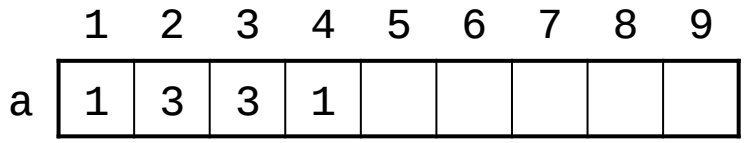
Pascal triangle - one arrays




```
a[1] = 1;

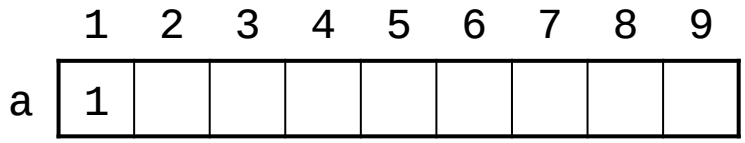
a[2] = 1;

a[2] = a[1] + a[2];
a[3] = 1;

a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   for( int j = 2; j <= i; j++ )
      a[j] = a[j-1] + a[j];
   a[i+1] = 1;
}
```

Pascal triangle - one arrays




```
a[1] = 1;

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a[2] = a[1] + a[2];
a[3] = 1;

a[2] = a[1] + a[2];
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a[4] = 1;
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```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   for( int j = 2; j <= i; j++ )
      a[j] = a[j-1] + a[j];
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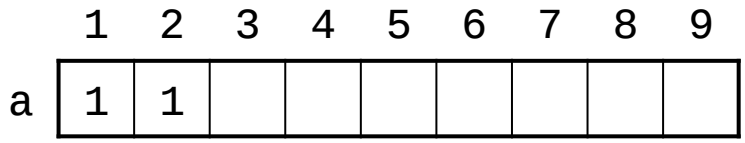
```

Pascal triangle - one arrays




```
a[1] = 1;

a[2] = 1;

a[2] = a[1] + a[2];
a[3] = 1;

a[2] = a[1] + a[2];
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a[4] = 1;
```

```
a[1] = 1;
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{
   for( int j = 2; j <= i; j++ )
      a[j] = a[j-1] + a[j];
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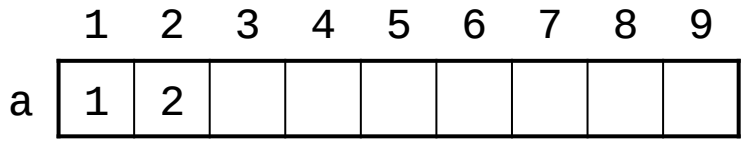
Pascal triangle - one arrays




```
a[1] = 1;

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a[2] = a[1] + a[2];
a[3] = 1;

a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   for( int j = 2; j <= i; j++ )
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   a[i+1] = 1;
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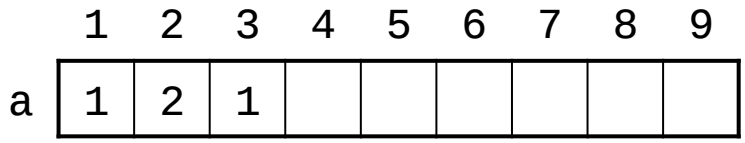
```

Pascal triangle - one arrays




```
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a[2] = a[1] + a[2];
a[3] = 1;

a[2] = a[1] + a[2];
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```
a[1] = 1;
for( int i = 1; i < level; i++ )
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   for( int j = 2; j <= i; j++ )
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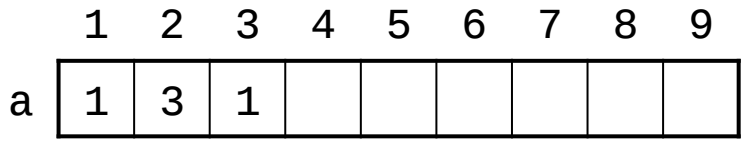
}
```

Pascal triangle - one arrays

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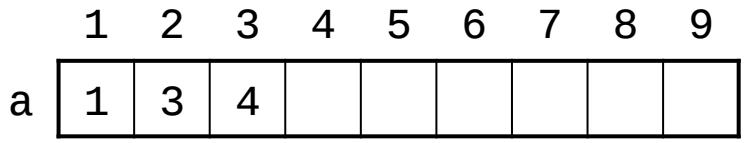
{
   for( int j = 2; j <= i; j++ )
      a[j] = a[j-1] + a[j];
   a[i+1] = 1;
}
```

Pascal triangle - one arrays




```
a[1] = 1;

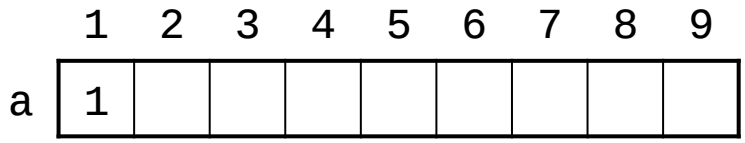
a[2] = 1;

a[2] = a[1] + a[2];
a[3] = 1;

a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   for( int j = 2; j <= i; j++ )
      a[j] = a[j-1] + a[j];
   a[i+1] = 1;
}
```

Pascal triangle - one arrays




```
a[1] = 1;

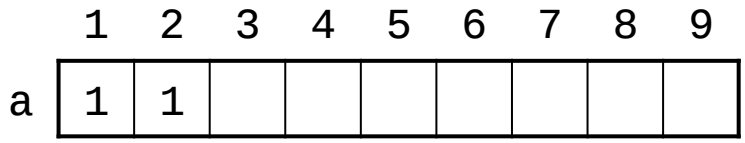
a[2] = 1;

a[3] = 1;
a[2] = a[1] + a[2];

a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   a[i+1] = 1;
   for( int j = i; j >= 2; j-- )
      a[j] = a[j-1] + a[j];
}
```

Pascal triangle - one arrays




```
a[1] = 1;

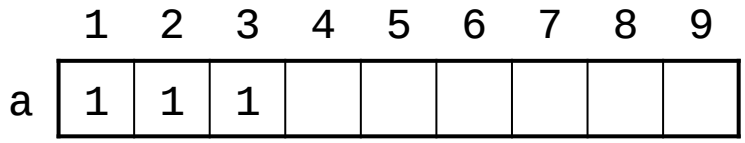
a[2] = 1;

a[3] = 1;
a[2] = a[1] + a[2];

a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   a[i+1] = 1;
   for( int j = i; j >= 2; j-- )
      a[j] = a[j-1] + a[j];
}
```

Pascal triangle - one arrays




```
a[1] = 1;

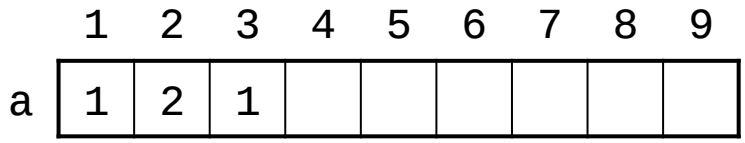
a[2] = 1;

a[3] = 1;
a[2] = a[1] + a[2];

a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   a[i+1] = 1;
   for( int j = i; j >= 2; j-- )
      a[j] = a[j-1] + a[j];
}
```

Pascal triangle - one arrays




```
a[1] = 1;

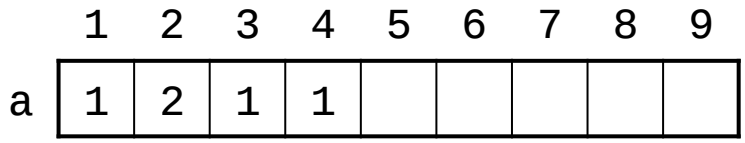
a[2] = 1;

a[3] = 1;
a[2] = a[1] + a[2];

a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   a[i+1] = 1;
   for( int j = i; j >= 2; j-- )
      a[j] = a[j-1] + a[j];
}
```

Pascal triangle - one arrays




```
a[1] = 1;

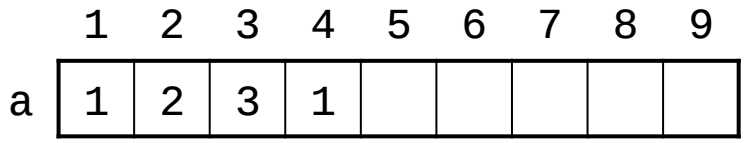
a[2] = 1;

a[3] = 1;
a[2] = a[1] + a[2];

a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   a[i+1] = 1;
   for( int j = i; j >= 2; j-- )
      a[j] = a[j-1] + a[j];
}
```

Pascal triangle - one arrays




```
a[1] = 1;

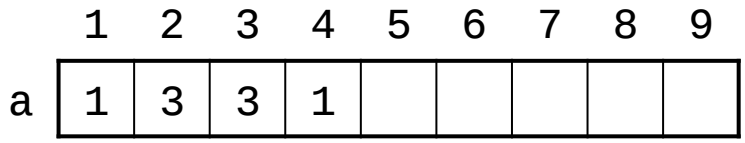
a[2] = 1;

a[3] = 1;
a[2] = a[1] + a[2];

a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   a[i+1] = 1;
   for( int j = i; j >= 2; j-- )
      a[j] = a[j-1] + a[j];
}
```

Pascal triangle - one arrays




```
a[1] = 1;

a[2] = 1;

a[3] = 1;
a[2] = a[1] + a[2];

a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
```

```
a[1] = 1;
for( int i = 1; i < level; i++ )
{
   a[i+1] = 1;
   for( int j = i; j >= 2; j-- )
      a[j] = a[j-1] + a[j];
}
```

```
int main()
{
   int a[100];
   int n;
   cout << "Levels? (1-13): ";
   cin >> n;
   a[1] = 1;
   for( int i = 1; i < n; i++ )
   {
      a[i+1] = 1;
      for( int j = i; j >= 2; j-- )
         a[j] = a[j-1] + a[j];
   }
}
```

```
int main()
{
   int a[100];
   int n;
   cout << "Levels? (1-13): ";
   cin >> n;
   a[1] = 1;
   for( int i = 1; i < n; i++ )
   {

      a[i+1] = 1;
      for( int j = i; j >= 2; j-- )
         a[j] = a[j-1] + a[j];
   }
}
```